

REMARKS

Entry of this amendment and reconsideration of this application, as amended, are respectfully requested.

Claim 21, 23 and 32 were rejected under 35 U.S.C. §102(e) for allegedly being anticipated by Bauer. Applicants respectfully traverse.

- a) A configuration for n consumers of electric energy,
- b) of which m consumers are supplied simultaneously with energy,
- c) wherein at any time $m < n$,
- d) and whereby a modular energy supply comprising k energy modules is provided,
- e) and whereby the sum of the power supplyable by the k energy modules is smaller than the power which would be necessary, if all n consumers simultaneously required electrical power,
- f) wherein a control is provided which connects as many energy modules to receptive one of the m consumers so that this consumer receives the power required by said consumer.

The Examiner refers to Fig. 3 and to column 1, lines 31-49 of Bauer, but not specifically show where in Bauer features a) through f) as set forth above are disclosed. Fig. 3 of Bauer shows a motor-drive patch matrix. It illustrates diagrammatically part of the network 4 and in particular the switch matrix 28 which is an example of a single matrix configuration. In this arrangement, there are twelve axis controllers 8 each coupled to a respective VSD 10 (VSD = variable speed drive, col. 1, lines 14/15). The VSD controls thirty-two winch motors 6 which can be connected together by buses which form part of the matrix 28. Each of the controllers 8 is coupled to a winch control patch bus 24 represented by columns in the matrix, and each of the motors is connected to a motor bus 26 represented by rows in the matrix.

Since winch motors 6 are consumers, the twelve motors are “n consumers”. Nowhere, however, is disclosed that m out of these n consumers are supplied simultaneously with energy. Bauer merely discloses that the number of motors may be reduced. Thus, feature b) of claim 21 is not disclosed by Bauer. Bauer does not disclose that $m < n$, whereby both m and n refer to consumers, i.e., feature c). Applicants refer to this feature below.

The VSDs of Bauer may be called “energy modules” which, for discussion, will be considered to correlate with feature d) of claim 21. However, buses 26 and 24 are primarily information buses, and only secondary energy buses. Power buses 38 are shown in Fig. 4B. In any event, Bauer does not speak of a sum of the power supplied to the consumers; Bauer discloses that each consumer is connected to one “module” only.

As a result, features b), c), e) and f) are not disclosed by Bauer.

Column 1, lines 31-49, to which the Examiner also refers, has nothing to do with the present invention. No modular energy suppliers are disclosed as such, although the VSDs have, in some respect, the function of energy suppliers.

The only feature of Bauer which appears to be remotely similar to feature c) is disclosed in col. 1, lines 42-49 of Bauer:

“Economies can be realized if the number of motors required to run simultaneously is lower or substantially lower than the total numbers of motors and this is frequently the case. In this case, the number of VDSs can be reduced to the motors required to run at the same time.

According to the present invention, however, the number k of energy modules will not be reduced to the number of consumers)(k is not equal to m. The number k has nothing to do with the number m.

According to the presently claimed invention the powers of modular energy supplies are added with respect to one consumers (“...the sum of the power..., feature e). Bauer does not disclose that the powers of the VSDs are added. The control and/or power signals have an influence

on acceleration, maximum speed, duration of maximum speed, rate of deceleration and precise end-point positioning (col. 1, lines 21-25). When a particular motor needs to be operated, it can be coupled through its motor bus 26 and switches 30 to one of two VSDs (col. 5, lines 37-39). If one of those VSDs is available, the appropriate coupling is made so that the motor can be operated as required. In other words, one motor is not coupled to two or more VSDs, but to one VSD only.

From Fig. 4 can be seen that a selected connection between one of the VSDs 10 and its associated axis controller 8 to the motor 6 through the patch switches 32 and 34 is established (col. 5, lines 56-65). It simply would not make sense to couple one motor 6 to a plurality of VSDs.

As is pointed out on col. 11, lines 35-57, one motor, one bus and one drive are allocated. The matrix should enable any combination of motors to be connected to a drive each (col. 1, lines 63-67).

The logic elements are operable to determine which devices are coupled to respective drives without direct coupling between the central controller and said logic elements.

Thus, each an every feature of claim 21 is not disclosed by Bauer.

Reference is now made to the Examiner's "Response to Arguments", and in particular to page 9, second paragraph. In Bauer, the number of drives (VSDs) may be less than the number of devices (consumers) of the system. However, Bauer does not teach connecting as many energy modules to respective one of the m consumers so that this consumer receives the power required by the consumer (feature f)).

The Examiner alleges that Bauer teaches that economies can be realized if the number of motors required to run simultaneously is lower or substantially lower than the total numbers of motors. However, as already mentioned above, in this case the number of VSDs can be reduced to the number of motors required to run at the same time. This would mean $k = m$, because each running motor is coordinated to one power supply, which is not the case according to the present invention, since k and m have nothing to do with each other. Rather, the consumers of the present invention need more than one power supply.

Furthermore, Bauer does not disclose that each of the energy modules has the same power as set forth in claim 32.

In view of the foregoing, this rejection must be withdrawn since all of the features of claim 21, and, therefore, claim 23 and 32, are not disclosed by Bauer.

Claims 22, 23, 25 and 31 were rejected under 35 U.S.C. §103 for allegedly being unpatentable over Bauer in view of Sellers. Applicants respectfully traverse.

As indicted above, Bauer does not teach the configuration as claimed in claim 21. Bauer does not teach feature f), i.e., there is no plurality of energy modules which are connected to one of the m consumers; rather Bauer connects one energy source to one consumer.

Sellers relates to an arc control and switching element protection for pulsed DC sputtering power supply and has, therefore, nothing to do with energy supply.

Column 4, lines 25-28 of Sellers cited by the Examiner states

“it is an object of the invention to enhance sputtering or other plasma chamber operation in a fashion which detects and deals with arcing or over voltage conditions, and which avoids the problems of the prior art.

This disclosure does not provide any hint or suggestion as to how to deal with a plurality of sputter installations. Claim 22 is directed to an embodiment where although the consumers are supplied by a connection of a plurality of energy sources, each of them has its own arc management.

Thus, this rejection must be withdrawn, as each and every feature of claims 22, 23 25 and 31 are not taught or suggested by the cited references.

Claim 24 was rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over Bauer in view of Lau. Claims 26-28 were rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over Bauer and Mahler. Claims 29 and 30 were rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over Bauer and Milde. Applicants traverse each of these rejections.


As stated above, Bauer fails to disclose each and every feature of claim 21. None of Lau, Mahler or Milde overcome the deficiencies of Bauer, so the rejection must be withdrawn.

In view of the forgoing, allowance is respectfully requested.

If any fees are due for entry of this amendment, authorization is given to charge deposit account no: 50-0624.

If any extensions of time are required, please consider this a petition therefore and charge the petition fee to said deposit account.

Respectfully submitted,

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